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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,149	09/24/2003	Joseph Phillip Bigus	YOR920030271US1	7384

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DUKE. W. YEE
YEE & ASSOCIATES, P.C.
P.O. BOX 802333
DALLAS, TX 75380

EXAMINER

TRAN, MAI T

ART UNIT PAPER NUMBER

2129

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/670,149	BIGUS ET AL.	
	Examiner	Art Unit	
	Mai T. Tran	2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 24 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is responsive to application 10/670149, filed September 24, 2003.

Claims **1-24** have been examined.

CLAIM REJECTIONS - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The invention as disclosed in claims **1-24** is directed to non-statutory subject matter.

2. None of them is limited to practical applications. Examiner finds that *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) controls the 35 U.S.C. § 101 issues on that point for reasons made clear by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447 (Fed. Cir. 1999). Specially, the Federal Circuit held that the act of:

...[T]aking several abstract ideas and manipulating them together adds nothing to the basic equation. *AT&T v. Excel* at 1453 quoting *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994).

Examiner finds that Applicants' "generating one fuzzy data set ..., generating one fuzzy rule set ..., determining the health of the computing system based on one fuzzy data set and one fuzzy rule set" references are just such abstract ideas.

3. Examiner bases his position upon guidance provided by the Federal Circuit in *In re Warmerdam*, as interpreted by *AT&T v. Excel*. This set of precedents is within the same line of cases as the *Alappat-State Street Bank* decisions and is in complete agreement with those decisions. *Warmerdam* is consistent with *State Street's* holding that:

Today we hold that *the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price*, constitutes a practical application of a mathematical algorithm, formula, or calculation because it produces ‘a useful, concrete and tangible result’ -- *a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades*. (emphasis added) *State Street Bank* at 1601.

4. True enough, that case later eliminated the “business method exception” in order to show that business methods were not per se nonstatutory, but the court clearly *did not* go so far as to make business methods *per se* statutory. A plain reading of the excerpt above shows that the Court was *very specific* in its definition of the new *practical application*. It would have been much easier for the court to say that “business methods were per se statutory” than it was to define the practical application in the case as “...the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price...”
5. The court was being very specific.
6. Additionally, the court was also careful to specify that the “useful, concrete and tangible result” it found was “a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.” (i.e. the trading activity is the further practical use of the real world monetary data beyond the transformation in the computer – i.e., “post-processing activity”).
7. Applicants cite no such specific results to define a useful, concrete and tangible result. Neither do Applicants specify the associated practical application with the kind of specificity the Federal Circuit used.
8. Furthermore, in the case *In re Warmerdam*, the Federal Circuit held that:

...[T]he dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating 'abstract ideas' or 'natural phenomena' ... As the Supreme Court has made clear, '[a]n idea of itself is not patentable, ... taking several abstract ideas and manipulating them together adds nothing to the basic equation'. In re Warmerdam 31 USPQ2d at 1759 (emphasis added).

9. Since the Federal Circuit held in *Warmerdam* that this is the “dispositive issue” when it judged the usefulness, concreteness, and tangibility of the claim limitations in that case, Examiner in the present case views this holding as the dispositive issue for determining whether a claim is “useful, concrete, and tangible” in similar cases. Accordingly, the Examiner finds that Applicants manipulated a set of abstract “generating one fuzzy data set ..., generating one fuzzy rule set ..., determining the health of the computing system based on one fuzzy data set and one fuzzy rule set” to solve purely algorithmic problems in the abstract (i.e. what *kind* of “data set” is used? mathematical data set? Algebraic word problems? Boolean logic problems? Fuzzy logic algorithms? Probabilistic word problems? Philosophical ideas? Combinations thereof?) Clearly, a claim for manipulation of “generating one fuzzy data set ..., generating one fuzzy rule set ..., determining the health of the computing system based on one fuzzy data set and one fuzzy rule set” is provably even more abstract (and thereby less limited in practical application) than pure “mathematical algorithms” which the Supreme Court has held are per se nonstatutory – in fact, it *includes* the expression of nonstatutory mathematical algorithms.
10. Since the claims are not limited to exclude such abstractions, the broadest reasonable interpretation of the claim limitations includes such abstractions. Therefore, the claims are impermissibly abstract under 35 U.S.C. §101 doctrine.

11. Since *Warmerdam* is within the *Alappat-State Street Bank* line of cases, it takes the same view of “useful, concrete, and tangible” the Federal Circuit applied in *State Street Bank*. Therefore, under *State Street Bank*, this could not be a “useful, concrete and tangible result”. There is only manipulation of abstract ideas.
12. The Federal Circuit validated the use of *Warmerdam* in its more recent *AT&T Corp. v. Excel Communications, Inc.* decision. The Court reminded us that:

Finally, the decision in *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) is not to the contrary. *** The court found that the claimed process did nothing more than manipulate basic mathematical constructs and concluded that ‘taking several abstract ideas and manipulating them together adds nothing to the basic equation’; hence, the court held that the claims were properly rejected under §101 ... Whether one agrees with the court’s conclusion on the facts, the holding of the case is a straightforward application of the basic principle that mere laws of nature, natural phenomena, and abstract ideas are not within the categories of inventions or discoveries that may be patented under §101. (emphasis added) *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447, 1453 (Fed. Cir. 1999).

13. Remember that in *In re Warmerdam*, the Court said that this was the dispositive issue to be considered. In the *AT&T* decision cited above, the Court reaffirms that this is the issue for assessing the “useful, concrete, and tangible” nature of a set of claims under 101 doctrine. Accordingly, Examiner views the *Warmerdam* holding as the dispositive issue in this analogous case.
14. The fact that the invention is merely the manipulation of *abstract ideas* is clear. The data referred to by Applicants’ phrase “fuzzy data set, measured metric, fuzzy rule set” is simply an abstract construct that does not limit the claims to the transformation of real world data (such as monetary data or heart rhythm data) by some disclosed process. Consequently, the necessary conclusion under *AT&T*, *State Street* and *Warmerdam*, is straightforward and clear. The claims take several abstract ideas (i.e., “generating one fuzzy data set ..., generating one fuzzy rule set ..., determining the health of the

computing system based on one fuzzy data set and one fuzzy rule set” in the abstract) and manipulate them together adding nothing to the basic equation. Claims 1-24 are thereby, rejected under 35 U.S.C. §101.

CLAIM REJECTIONS - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-24 are rejected under 35 U.S.C. §112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a §101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed *how* to practice the *undisclosed* practical application. This is how the MPEP puts it:

(“The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35 U.S.C. §101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. §101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. §112.”); In re Kirk, 376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) (“Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention.**”) See, MPEP 2107.01(IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-24 are rejected on this basis.

CLAIM REJECTIONS - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Arnold et al, U.S. Patent No. 5,822,301, hereafter Arnold.

Claim 1

Arnold teaches a method of determining the health of a computing system component, comprising:

generating at least one fuzzy data set associated with at least one measured metric of the computing system component, wherein the fuzzy data set defines fuzzy regions indicating different categories of the measured metric (col. 3, lines 22-46);

generating at least one fuzzy rule set associated with the at least one measure metric, wherein the fuzzy rule set defines a relationship of the fuzzy regions of the fuzzy data set to categories of computing system component health (col. 3, lines 22-46); and

determining the health of the computing system component based on the at least one fuzzy data set and the at least one fuzzy rule set (col. 3, lines 22-46).

Claim 2

Arnold teaches the method of claim 1, wherein the at least one fuzzy data set is generated by performing data mining on metric history data, wherein the metric history data includes measured values for the at least one measure metric for a predetermined period of time (col. 4, lines 23-53).

Claim 3

Arnold teaches the method of claim 2, wherein the data mining includes performing statistical analysis of the metric history data to determined the distribution of the metric history data (col. 2, lines 36-46).

Claim 4

Arnold teaches the method of claim 1, further comprising:

generating at least one second fuzzy rule set indicating a relationship of the health of the computing system component to the health of at least one other computing system component (col. 4, lines 22-44) .

Claim 5

Arnold teaches the method of claim 1, further comprising:

generating an indicator of the health of the at least one computing system component (col.8, lines 8-17); and

outputting the indicator (col. 8, lines 8-17).

Claim 6

Arnold teaches the method of claim 5, wherein outputting the indicator includes outputting a graphical user interface having an indicator for each component of a computing system (col. 8, lines 8-17).

Claim 7

Arnold teaches the method of claim 1, wherein determining the health of the computing system component based on the at least one fuzzy data set and the at least one fuzzy rule set includes:

applying the at least one fuzzy rule set to metric data collected by a metric data collection facility (col. 3, lines 22-46); and

determining a fuzzy data set in which the metric data is classified based on the application of the at least one fuzzy rule set (col. 3, lines 22-46).

Claim 8

Arnold teaches the method of claim 7, wherein the at least one fuzzy rule set includes at least one hedge and wherein determining a fuzzy data set in which the metric data is classified includes applying at least one hedge algorithm associated with the at least one hedge to metric data (col. 9, lines 49-56).

Claims 9-16, this is a software version of the claimed method discussed above, in claims 1-8, wherein all claimed limitations have also been addressed and cited as set forth above.

Claims 17-24, this is an apparatus version of the claimed method discussed above, in claims 1-8, wherein all claimed limitations have also been addressed and cited as set forth above.

CONCLUSION

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. Phaal, Peter, U. S. Patent No. 5,557,547, discloses a monitoring system status.
2. Chappelle, David W., U. S. Patent No. 5,949,976, discloses a computer performance monitoring and graphing tool.

3. Friedrich et al, U. S. Patent No. 5,958,009, discloses system and method for efficiently monitoring quality of service in a distributed processing environment.
4. Agarwal et al, U. S. Patent No. 5,958,010, discloses systems and methods for monitoring distributed applications including an interface running in an operating system kernel.
5. Bigus, Joseph Phillip, U. S. Patent No. 6,112,194, discloses method, apparatus and computer program product for data mining having user feedback mechanism for monitoring performance of mining tasks.
6. Johnson, Fred Lipscomb, U. S. Patent No. 6,112,301, discloses system and method for customizing an operating system.
7. Rochberger et al, U. S. Patent No. 6,483,808, discloses method of optimizing routing decisions over multiple parameters utilizing fuzzy logic.
8. Dodge et al, U. S. Patent No. 6,795,778, discloses system and method for facilitating welding system diagnostics.


CORRESPONDENCE INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mai T. Tran whose telephone number is (571) 272-4238. The examiner can normally be reached on M-F 9:00am-- 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Vincent can be reached on 571-272-3080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.T.T
Patent Examiner
Date: 5/30/2006


David Vincent
Supervisory Patent Examiner
Tech Center 2100